

## AITS-JEE(Main+Advanced): TEST SYLLABUS FOR CLASS XI

S. No.	Test Dates	Test Code	PHYSICS	MATHS	CHEMISTRY
1	02-Jul-17	PT-1 (Adv.)	Mathematical tools, Rectilinear motion (Distance, displacement, Average velocity, Average acceleration, Motion with uniform acceleration Graphs )	Sets, Relation & Function, Fundamentals of Mathematics-I (FOM-1) (Number system, Important formula, Componendo & Dividendo, Idea of polynomial, Factor theorem/Remainder theorem, Idea of intervals, Method of Interval, Logarithm : Definition, Identity, Properties, Graph, Logarithm equation)	Introduction to Chemistry & Atomic Structure (ChemInfo, Thomson & Rutherford's Model)  IUPAC-Nomenclature (Introduction of s and p bond. Valencies of C, H, X, O & N. Degree of C, H & X and structure formula, Hybridization of carbon & DU of Hydrocarbon only, General formula, Bond Line formula, Structural formula and homologs, Classification of organic compound, aromatic compound (excluding huckel rule) bicyclic compound, spiro compound. General Rules of IUPAC Nomenclature, IUPAC-Nomenclature of Alkane & Cyclo alkane with simple side chain (Alkyl Radical), IUPAC-Nomenclature of Alkane & Cyclo alkane with complex alkyl radical, IUPAC-Nomenclature of Alkenes, alkynes, Cycloalkene and polyene)
2	09-Jul-17	CT-1(Main)	Mathematical tools, Rectilinear motion	Sets, Relation & Function, Fundamentals of Mathematics-I	Introduction to Chemistry & Atomic Structure (ChemInfo, Thomson & Rutherford's Model, Properties of Charge, Estimation of Closest distance of approach, Atomic No./Mass No., Isotopes, Isobars, Isotones, Isoelectronic (Handout), Properties of waves, Electronic wave radiation, Quantum theory of Light)  IUPAC-Nomenclature of chain terminating Functional groups (Aldehyde & Carboxylic acids, (Amides, Oyl halide & Nitriles)
3	13-Aug-17	CT-1 (Adv)	Mathematical tools, Rectilinear Motion, Projectile Motion, Relative Motion, Newton's Law of Motion (NLM)	Fundamentals of Mathematics-I, Quadratic Equation, Sequence & Series, FOM-II, (Modulus function : Definition, Equations)	Introduction to Chemistry & Atomic Structure  IUPAC Nomenclature and Structural Isomerism, All basic concepts of Organic chemistry (ABC-1)(ABC-Alkane, ABC-Alkene, ABC-Alkyne, ABC-Benzene), Structural Identification
4	03-Sep-17	PT-2 (Adv.)	Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, Unit and Dimension, Work, Power & Energy (WPE) (Calculation of work by constant force, W.D. By variable force, area under graph, Spring force, Kinetic energy)	Fundamentals of Mathematics-I, Quadratic Equation, Sequence & Series, FOM-II	Introduction to Chemistry, Atomic Structure & Gaseous State-1  Structural Identification, Periodic Table & Basic Inorganic Nomenclature (BIN)
5	24-Sep-17	CT-2 (Main)	Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, Unit and Dimension, WPE	Sets, Relations & Function, Fundamentals of Mathematics-I, Quadratic Equation, Sequence & Series, FOM-II, Trigonometry	Introduction to Chemistry, Atomic Structure, Gaseous state-1, Mole Concept (Concept of density, % Composition of a given compound by mass, % by mole, Minimum molecular mass determination, Empirical & Molecular Formula, Introduction of stoichiometry, Equation based calculations (Elementary level single equation or 2) And Concept of Limiting reagent, % Excess, % Yield / Efficiency, Principle of Atom conservation (POAC))  Structural Identification, Periodic Table, BIN & Chemical Bonding (Types of bonding (Definitions of Ionic bond Covalent bond and Metallic bond) and octet rule, Limitations of octet rule, Formal charge, Co-valent Bond formation $\sigma$ & $\pi$ bond, Writing the lewis dot structure, Writing resonating structures, finding average bond order, Stability of resonating structures, Finding bond order in oxoanions and their acids)
6	12-Nov-17	CT-2 (Adv.)	Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, Unit and Dimension, WPE, Circular Motion, Centre of Mass (COM), Error & Measurement, Rigid Body Dynamics (RBD) (Definition and types of motion, Moment of Inertia, Theorems, Radius of gyration, Torque, point of application of force, Rotation about fixed axis, Derivation of $\tau = I\alpha$ , Equilibrium, Angular momentum, Angular momentum conservation, CTRM )	Fundamentals of Mathematics-I, Quadratic Equation, Sequence & Series, FOM-II, Trigonometry, Solution of Triangle (SOT), Binomial Theorem, Statistics, Straight Line (Rectangular Cartesian - coordinate system, Distance formula, Section formulas, Special points of $\Delta$ , Area of $\Delta$ , Slope formula, Condition of collinearity of 3 points, Locus, Equation of straight line in various forms, General form of Straight Line)	Introduction to Chemistry, Atomic Structure, Gaseous state-1, Mole Concept, Chemical Equilibrium (Introduction & Law of Mass Action, Equilibrium Constants ( $K_p$ & $K_c$ ), Questions based on them & their interrelation, Reaction Quotient & Characteristics of equilibrium constant)  Periodic Table, BIN, Chemical Bonding, ABC-II (ABC-R-X, ABC-ROH)
7	03-Dec-17	PT-3 (Adv.)	NLM, Friction, WPE, Circular motion, COM, RBD, Simple Harmonic Motion (SHM)	Trigonometry, SOT, Binomial Theorem, Statistics, Straight Line	Introduction to Chemistry, Atomic Structure, Gaseous State-1, Mole Concept, Chemical Equilibrium  Chemical Bonding, ABC-II and General Organic Chemistry (GOC)-1 (Inductive effect, Resonance, Resonance effect (Drawing Structure), Stability of Resonating structure, Mesomeric effect)

8	07-Jan-18	CT-3 (Main)	Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, WPE Circular Motion, COM, RBD, SHM, Fluid Mechanics, String wave	Sets, Relation & Function, Fundamentals of Mathematics-I, Quadratic Equation, Sequence & Series, FOM-II, Trigonometry, SOT, Binomial Theorem, Principle of Mathematical Induction (PMI), Statistics, Straight Line, Circle, Permutation & Combination (P & C) (Fundamental principle of counting, Permutation and arrangements of objects, Combination, Arrangement of object with few object same, Selection of one or more object, Formation of group and distribution of objects)	Introduction to Chemistry, Atomic Structure, Gaseous state-1, Mole Concept, Chemical Equilibrium, Gaseous State-2 & Thermodynamics (Introduction & Definitions, Reversible & Irreversible Process, Introduction of First Law, Heat & Internal Energy, Calculation of Work - Isothermal, Isochoric & Isobaric, CP & CV, $\gamma$ (gamma), enthalpy, Reversible and Irreversible Adiabatic & Comparison, Phase Transformation & work done during chemical reactions, Second Law and Entropy Calculation)	ABC-II and GOC-I, ABC-III (Phenol, Aniline)
9	04-Feb-18	PT-4 (Adv.)	NLM, Friction, WPE, Circular Motion, COM, RBD, SHM, Fluid Mechanics, String wave, sound wave, KTG and Thermodynamics	Circle, P & C, Conic Section	Introduction to Chemistry, Atomic Structure, Gaseous state-1, Mole Concept, Chemical Equilibrium, Gaseous State-2, Thermodynamics & Ionic Equilibrium (Elementary) (Acid base concept, Ostwald dilution law, Properties of water)	Chemical Bonding, GOC-I & ABC-III, ABC-IV (ABC-Carbonyl, ABC-Carboxylic acid, s-block elements)
10	18-Feb-18	MT (Adv.)	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus
11	25-Feb-18	MT (Main)	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus
12	04-Mar-18	AIOT (Main)	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus